

### REMARKS

Claims 91-129 and 150-157 are pending. Claims 91-122 and 150-157 have been amended. New Claims 158-161 have been added. Claims 130-149 have been withdrawn due to a previous Restriction Requirement.

The amendments have been made to place the claims in better form for examination and to further obviate the 35 U.S.C. § 103(a) rejections as set forth in the Office Action dated September 16, 2008. It is believed that none of these amendments constitute new matter. It is submitted that these amendments obviate the rejections. Withdrawal of these rejections is respectfully requested.

#### **Restriction Requirement Election**

Applicants' Attorney spoke to the Examiner on July 30, 2008 to correct the previous Restriction Requirement dated June 30, 2008 and to include the claims that are currently pending. A provisional election of Group I claims (claims 91-129 and 150-157) was made by Applicants' Attorney on July 30, 2008. Applicants hereby formally elect Group I (claims 91-129 and 150-157), drawn to an oil emulsion. Claims 130-149 have been withdrawn.

#### **Claim Rejection – 35 U.S.C. §103 – Cain**

The Examiner has rejected claims 91-95, 98-120, 122-125, 150-157 under 35 U.S.C. § 103(a) as being unpatentable over Cain et al. (U.S. 2002/0081366). Applicants respectfully traverse this rejection in light of the amendments and arguments presented herein. Claims 91-122 and 150-157 have been amended. The Examiner states that Cain discloses triglycerides that are rich in polyunsaturated fatty acids. In Example VII of Cain, range style dressing is made with oil, egg yolk, water and xanthan gum. The oils are described as a combination of sunflower oil and an interesterified blend of tuna oil and another triglyceride. The fatty acid content of part of the blend is described in Table 20 of Cain to contain long chain fatty acids with at least three double bonds. The Examiner does point out that the current pending claims of the present application appear to differ from Cain in the recitation of an emulsion stabilizer but Applicants define xanthan gum as an emulsion stabilizer. The Examiner also points out that an antimicrobial agent is not mentioned in Cain and that the particular weight ratios of oil to water and emulsion stabilizer are also not mentioned in Cain.

The oil-in-water emulsion as now claimed is fundamentally different than the triglyceride/fat blend composition disclosed in the Cain reference. For example, the emulsion of the present invention contains an emulsifier that is present in an amount larger than any disclosed or suggested in Cain. Claims 91, 122 and 150 recite an emulsifier in an amount from about 1 wt.% to about 20 wt.% (support for this amendment can be found on page 7, lines 16-17 of Specification). As shown in Examples 1, 2 and 3 of the Specification, the emulsifiers (e.g., polysorbate 80 and lecithin) are within the 1 wt.% to 20 wt.% range. Cain, however, does not even generally discuss the use of emulsifiers or teach any specific desired amounts or ranges for them. As seen in Cain, several of the formulations in the Examples include compounds that are considered to be emulsifiers. For example, in Example VII (range dressing), an emulsifier (dried egg yolk, only a portion of which (lecithin) functions as an emulsifier) is present at 0.8 wt.%; in Example VIII (spreads), an emulsifier (HYMONO 7804) is present at 0.3 wt.%; and in Example IX (ice cream), an emulsifier (SHEREX IC 9330) is present at 0.6 wt.%. No where does Cain teach or suggest an amount or use of an amount of an emulsifier as now claimed. The claimed amount of emulsifier in the present oil-in water emulsion along with the emulsion stabilizer increases the stability of the emulsion compared to compositions as taught by Cain, which are not taught as requiring the use of an emulsifier and when used as in Examples VII, VIII and IX, contain relatively low amounts.

The differences between the use of an emulsifier at a level as claimed (from about 1 wt.% to about 20 wt.%) and the food formulations of Cain are significant. More particularly, Cain discloses final food product formulations such as range style dressing, spreads and ice cream. In contrast, the emulsions of the present invention are particularly useful because they can be incorporated and evenly dispersed into liquid food products, such as beverages. Because of the improved stability of the compositions of the present invention, when the emulsion is introduced into such a liquid food product, the oil component can remain emulsified. Since the emulsion composition contains polyunsaturated fatty acids (such as DHA), the polyunsaturated fatty acid will also be incorporated and evenly dispersed into the liquid food products. As described on page 10 of the Specification, “[a]n advantage of the emulsion of the present invention is that it can be uniformly dispersed in a wide variety of end products”. Cain does not teach or suggest incorporation of the emulsion into liquid food products or that the emulsion can be evenly dispersed in end products. Instead Cain describes a triglyceride/fat blend composition as a final

food product such as range dressing, spreads and ice cream (see Examples VII, VIII and IX of Cain).

Additionally, no reasoning or evidence is provided explaining why one skilled in the art would have been motivated to modify the teaching of Cain regarding the specific triglyceride/fat blend composition in order to arrive at the claimed solutions comprising an oil-in-water emulsion and having an emulsifier in an amount from about 1 wt.% to about 20 wt.%. “Rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 82 USPQ2d 1385, 1396, quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). No reasoning has been provided in the rejection. According to the *Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in KSR International Co. v. Teleflex Inc.*, 72 Fed. Reg. 57526 (October 10, 2007), the Examiner must provide some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention. In the present case, no explanation or support has been provided to show that one skilled in the art would have been motivated to modify the teaching of Cain to produce the solutions comprising an oil-in-water emulsion as now claimed. The Cain reference does not disclose or suggest the oil-in-water emulsions of the present invention which are particularly useful for incorporation into liquid food products, and can remain stably emulsified when used in this manner. Withdrawal of this rejection is respectfully requested.

#### **Claim Rejection – 35 U.S.C. §103 – Cain in further view of Kohn or Kyle**

The Examiner has rejected claims 96, 97 and 121 under 35 U.S.C. § 103(a) as being unpatentable over Cain et al. (U.S. 2002/0081366) as applied to claims 91-95, 98-120, 122-125, 150-157, and further in view of Kohn et al. (U.S. 2005/0129739) or Kyle (U.S. Patent 5,658,767). The Examiner states that although natural oil sources are used in Cain, oils from microorganisms and genetically modified plants are known in the art, as shown by Kohn and Kyle. Even if the combination of Cain and either Kohn or Kyle is made as suggested by the Examiner, none of the references, nor the combination of references discloses the claimed invention, namely a solution comprising an oil-in-water emulsion with an oil component having

one of the recited polyunsaturated fatty acids, an emulsifier (in the amount of 1 wt. %-20 wt. %), an emulsion stabilizer, and water. More specifically, as noted above, the composition of Cain is fundamentally different from the claimed solution comprising an oil-in-water emulsion. In addition, while Kohn et al. discloses polar-rich fractions (production and use) containing polyunsaturated fatty acids from microorganisms and genetically modified seeds and marine organisms and Kyle discloses the production of arachidonic acid containing oils that are substantially free of eicosapentanoic acid, neither reference discloses a solution having an oil-in-water emulsion as claimed in the current pending claims. Thus, it has not been established that the references, considered alone or in combination teach or suggest the invention, as claimed.

In order to support a *prima facie* case of obviousness, a combination of references must teach each and every one of the claimed elements. Since the combination of Cain and Kohn or Kyle does not teach each of the elements of Claims 91 and 150, from which Claims 92-95, 98-120, 122-125, and 151-157 depend (respectively), withdrawal of the rejection is respectfully requested.

In view of the foregoing, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are respectfully requested.

#### **Closing Remarks**

Based upon the foregoing, Applicants believe that all pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

SHERIDAN ROSS P.C.

By: /Gary J. Connell/

Registration No.  
1560 Broadway, Suite 1200  
Denver, Colorado 80202-5141  
(303) 863-9700

Date: February 16, 2009